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## THE SWEDISH

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MANUAL TREATMENT,

(LING'S SYSTEM).

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## PREFACE.

The Swedish Medical Manual Treatment has already for several years been warmly adopted in many of the Continental countries, but in England hitherto it has been but little known: consequently it has proved difficult to gain ground for this branch of Therapeutics here.

In Sweden it has been practised for nearly a century, and that the value of this treatment was recognised there so far back as 1814 is best shown by the fact that, in that year, a special College for studying it was opened in Stockholm by the Government, owing to the efforts of P. H. Ling, from whom the system takes its name.

For admission to this College—Kongle Gymnastiska Central Institutet—the same proficiency is required as for entering the Universities, and a three years' course is now

necessary to obtain a degree from this Institu-The subjects taught are anatomy, physiology, pathology, theoretical, and practical gymnastics, etc. The third year is entirely devoted to theoretical studies, and to the treatment of patients sent from the various hospitals of the city and by private practitioners, thus giving opportunity for practical demonstrations and experiment. When the student has passed the various examinations of the College, and obtained his diploma, a certificate is granted to him by the Royal Swedish Medical Council, authorising him to practise.

In the following treatise on the Swedish Medical Manual Treatment, which I have written in conjunction with Mr. G. KRIKORTZ, G.D. of Stockholm, it is not my intention to give any sort of handbook on the subject, but only to explain briefly the principles on which it is founded.

#### RICHARD TIMBERG, G.D. OF STOCKHOLM.

110, OXFORD ROAD, READING. February, 1894.

#### THE PRINCIPLES

OF THE

# Swedish Medical Manual Treatment.

By the term "Swedish Medical Manual Treatment" we mean that system, which was originated in Sweden by P. H. Ling, and developed by Dr. Branting and others, of treating different diseases or pathological conditions of the human body by means of movements, systematically regulated and accommodated carefully to the disease in question and to the general condition of the patient.

In order to explain the principles on which we base our method, I propose to point out the influence which movements, so far as it is known, have upon the general functions of the body, viz.: Circulation, Respiration, Digestion, Nutrition and Nerve Life, whether in a normal or abnormal condition.

To begin with the Circulation. It is known, that the most important cause of the circulation is the heart's own power of propulsion. When we ask if it is possible to exercise direct influence upon the heart by "passive movements," the answer is not very encouraging, owing to the sheltered position of this organ. However, it is not altogether discouraging, for it is possible to a certain degree to regulate the frequency and the power of the heart's beat, both by a light Tapotement, performed either by the ulnar side of the hand or by the palm (tapotement à l'air comprimé), and by Vibrations. Both of these manipulations have a reflective effect, though it is uncertain through which nerves the reflection passes.

We are able to exercise an *indirect* influence upon the heart in two ways: (I) by improving the general condition of the whole body (for it is quite evident that the heart muscle, as well as all other tissues, must benefit from an improved condition of the blood), and (2) by aiding the heart in its work to drive the blood through the vessels of the body.

For the present we will leave the former of these and speak only of the means we have at

our disposal for the latter purpose. Among the most important of such means is the enlarging of the respiratory movements. The respiration has a manifold influence upon the circulation. In this connexion we have first to notice the sucking, which is practised on the blood in the large venae cavæ by the negative pressure of the lungs. This is much increased and can rise up to -30 mm. hg. by a deep inspiration. It is easily understood, to what a high degree this must hasten the venous circulation. A sucking influence is also effected on the heart itself, so that its diastole is made easier. On the other hand there are circumstances counteracting to a slight degree this good influence, the blood being retarded in its course from the lungs to the heart and the systole becoming more difficult. That the circulation however is assisted by deep breathings is proved by the fact that the pressure in the aorta is gradually increasing during the inspiration and decreasing during the expiration.

Another method of aiding the circulation is by active movements of all kinds. The influence of these is in this respect double.

The contracted muscle exercises a pressure on the veins within it, and also to some extent on those in the immediate proximity. Further, the small intramuscular arteries are dilated by a reflective effect on the vasodilatatory nerves, clearly shown by plethysmographic observations.

Passive movements too have the power of facilitating the circulation. We must now explain what we mean by passive movements. Under this heading we do not only count Rollings, Bendings and Stretchings of the different joints made without the co-operation of the patient himself, but also Effleurage, Pétrissage and Tapotement of the muscles, or of other interior organs, as the abdominal bowels, or what is otherwise called "Massage." We do not regard the "massage" and the movement treatment as two different methods. We simply consider the former as a part of the latter.

The accelerating influence of Rollings on the circulation is due to the alternate stretching and relaxing of the coats of the veins; for a blood vessel holds more blood when its coats are stretched to a certain degree than when they are relaxed. Thus a pumping is effected towards the heart, the valvules of the veins preventing the current from flowing in an opposite direction. Another point is that the coats of the veins at certain joints, as for instance the femoral vein at the hipjoint, are fixed to the external fasciæ and aponeuroses. By rotation outwards and abduction of the thigh this vein is therefore dilated, while it is made narrower by rotation inwards and adduction. Even by this an aspiration to the heart is produced in the blood-territory in question.

The effect of centripetal Effleurage on the circulation is so clear that we do not need to dwell upon it. And no one who has seen it used, on the cedema of a Sprained Foot for instance, can remain in doubt as to the efficacious influence of this manipulation. Its greatest importance lies in the fact, that we are able to confine its influence to a more limited territory than by active movements, or by rollings, etc. We should here especially point out the great value of the effleurage of the neck in Calarrhs of the Pharynx, the Nasal Cavity and the Larynx, as well as in all hyperæmic conditions in the blood-territory depend-

ing upon the jugular veins. The effleurage is most effective here on account of the favorable position of the veins.

The Pétrissage has almost the same effect as the effleurage. We are forcing the blood towards the heart by kneading and pinching the muscles. The pétrissage of the abdomen especially exerts an immense influence upon the whole circulation, because of the great extent of the blood territory here accessible for the manipulations. If the patient takes a proper position, that is to say one in which the abdominal muscles are sufficiently relaxed, we may exert an influence, not only upon the greater part of the territory of the vena porta, but also upon that of the vena cava inf.

As the question of *Tapotement* is especially connected with Nutrition, it will be dealt with more fully under that heading. It is, however, also used to produce a local hyperæmia, as, for instance, when we want to make acute a torpid inflammation in the articulations. By the proved fact that the tapotement of the chest facilitates Expectoration, one is obliged to suppose it to have influence upon the vasomotor nerves in a more extensive territory.

The principal use of Vibrations will be considered when speaking about the nerve-functions, but we must not overlook their importance in reference to Circulation. We mentioned just now their influence upon the heart itself. They may also help to decrease Hyperæmia in various organs, such as the pharynx, larynx, liver, etc., whether due to chronic inflammation or to some other cause. Their power of advancing the reabsorption of exudated matter can be of considerable use after Pleurisy and Perityphlitis, as we ourselves have had opportunity of observing in the Kongl. Gymnastiska Central Institutet in Stockholm.

It is quite evident, that the means placed at our disposal by our method for facilitating the circulation must be of great value in the treatment of *Heart Diseases*. The object we then have in view is threefold, and experience proves that we succeed in it:—

(1) To make the heart's own work easier by helping the circulation, partly by passive movements, partly by active ones. (In using the latter, care must of course be taken to prevent the heart's action being accelerated by over-production of carbonic acid). By this the pressure in the aorta is diminished, and the heart's labour consequently lessened. The result of these two facts is, that the pulse becomes fuller, as is sufficiently proved by means of the sphygmograph.

- (2) To strengthen the heart-muscle itself. When the blood-pressure in the aorta is lowered, the heart has an opportunity of contracting itself more powerfully, and must therefore be able to press a more rapid blood-current through its own vessels. This means a better nutrition for the muscle-tissue, and so, when the mechanical hindrance to the completed contraction is also reduced, *Dilatatio Cordis* might be diminished in cases not too far advanced.
- (3) Our third object in the treatment of Heart diseases is to diminish hyperæmia of the veins of the interior organs, the lungs, and the intestines. The hyperæmic condition of the lungs, with the always accompanying more or less pronounced *Dyspnoë*, is in many forms of heart disease, such as affections of the bicuspid valve, the most troublesome symptom for the patient. By alleviating this symptom, we give the patient a relief, that he seldom fails to acknowledge. Besides it is a well-

known fact, that patients with a diseased heart are always exposed to *Catarrhs* in the respiratory and digestive organs by reason of this very hyperæmia in the veins. Owing to our means of diminishing this hyperæmia, we are able to lessen the risk which the patients runs of bringing upon themselves catarrhs in the bronchial tubes, the lungs, and the intestines, and, where complaints of this kind are already developed, we are able to considerably assist the cure.

Those who do not know the Swedish Medical Manual Treatment of course imagine that to treat a person suffering from Heart disease by Movements is a very dangerous thing. But if we consider that we always begin the treatment by passive movements, kneadings of the muscles, rollings of the feet and hands, and cautious respiratory movements, and that it is not until later on, when we see that the patient can "stand" it, that we pass over to gentle active movements, then it can easily be understood, that this fear is entirely without foundation.

In the same way that we are able to diminish the superfluity in the veins of the interior organs, when caused by a weak heart, we are also able to do so, if there are other causes of this superfluity, viz., by improving the circulation and by drawing the blood in greater quantities to the skeleton muscles. Thus we can successfully treat *Chronic Inflammations* in the respiratory, digestive and urogenital canals.

In connection with the means at our disposal for treating inflammations in the mucous membranes generally, we ought to point out the great value of this treatment in common *Synovitis*. That in many affections of this kind even the active movements are of good effect has been proved by experience.

The Respiratory Functions may also be influenced by our method in a very marked degree, the chief aim being to strengthen the respiratory muscles and to render the rib joints more movable.

How often do we not notice, that persons with a narrow weakly developed chest fall easy victims to phthisic affections of the lungs, catarrhs in the bronchial tubes, etc., this evidently being caused by the more difficult circulation in the weakly distended lungs. By

strengthening those muscles which facilitate Inspiration, such as the extensors of the upper part of the spinal column, the rhomboid muscles, and others—that is to say, by indirectly improving the circulation in the smaller circulatory system and by enlarging the surface of the respiration—we may not only prevent the development of Phthisis in persons with disposition to this disease, but I can confidently assert that it is possible also to arrest the progress of the disease in its early stages. In such a case we do not of course neglect either the generally strengthening movement treatment, or our means of hastening local circulation, viz., Vibrations and Tapotements of the chest. (We will here lay particular stress upon the fact, that neither in this case, nor in any other, do we overlook the great importance of other generally strengthening remedies, such as fresh open air, sufficient nourishing food, etc.)

On the other hand it may sometimes be necessary to give our special attention to aiding Exspiration. This is especially the case in the treatment of Emphysema, where we try, by pressing on the chest and abdomen, to make

the exspirations deeper. The alveolar walls have then a better opportunity of contracting, and this has a favorable influence upon their elasticity.

The great importance of an easier respiration in more developed cases of Kypho-scoliosis deserves particular consideration. The lungs in such cases are, as is well known, suffering severely from the pressure exercised upon them by the deformed thorax, which pressure can reach to such a degree, that a smaller or larger Atelectasis may arise. Even if we cannot hope in such serious cases to do much for the foundation disease, the scoliosis, we are, however, often able to prevent the beginning of the fatal condition of the lungs by maintaining at least some mobility of the thorax.

A rather common obstacle to easy respiration is the Formation of Gases in the intestines, which gases may considerably reduce the mobility of the diaphragm. The way of preventing this formation of gases is best explained in connexion with Digestion, to the consideration of which we will now proceed.

We have already pointed out how numerous and how important are the means

which the mechanical treatment affords us for improving the circulation. Digestion being dependent in such a high degree upon a normal circulation in the abdominal viscera, it is evident that we, by aiding the latter, can also improve the former. Just as every activity of the glands depends upon a normal supply of blood, so also must the secretion of the gastric juice and other digestive secretions depend upon it. Every disturbance of the circulation in the membranes of the abdominal viscera must therefore exercise an injurious influence upon the secretion of the juices. Unfortunately no researches, so far as we know, have hitherto been made to show the influence of the movement treatment, especially that of the pétrissage of the abdomen and the vibrations of the stomach, on the secretion of hydrochloric acid and pepsin. But we must at all events suppose that these secretions are stimulated, for we know by experience, that a Chronic Catarrh of the Stomach may be successfully treated in this way. It is difficult to say how much importance we may attach in this case to the improved circulation or to the directly stimulating influence upon the glands

of the vibrations and frictions.

In cases of weakness in the muscular coat of the stomach, Dilatatio Ventriculi, we may by operating in a direct way upon that organ beneath the left hand lower edge of the thorax considerably improve the condition of its muscles, so that it will get more force to drive out the ingesta, through the pylorus. In such cases when the dilatation is caused by Stenosis in the pylorus, there is of course not much, but still something to be expected. The manual treatment of catarrhs in the stomach has also in the last place an effect upon that reabsorption of the peptons, which takes place in the mucous membrane of the stomach itself, and this is due partly to the improved circulation and partly to the stronger peristaltic movements of the stomach.

On the functions of the intestines, we may, from their more accessible position for manipulation, expect a still greater effect, and experience shows that we are not disappointed. In *Chronic Constipation*, at least in such cases, where the cause is not a serious disease in the central nervous organs, there is certainly not a more excellent remedy than the manual

treatment. In the treatment of this complaint, we must be very careful to strengthen the muscular coat of the colon by frictions in all its length. Such movements, as strengthen the external abdominal muscles are also of importance, because they seem to have a reflective effect upon the peristaltics.

We have already mentioned, in connection with Respiration, the hindrance to the mobility of the diaphragm, that is caused by Gases in the Intestines. What then can we do to prevent this formation of gases? The reason of their development is, that the ingesta remain too long a time in the intestines, so that an abnormal degree of fermentation has the opportunity of taking place. It is therefore our aim to make the ingesta pass quicker through the alimentary canal, and we are able to contribute to this result in a very marked manner by strengthening the muscular coats of the intestines and so making the peristaltics more lively. Besides the strengthening of the abdominal coverings deserves special attention in this case, as, when well developed, they do not permit any too great distention of the intestines.

If we want briefly to summarise the effect of the mechanical treatment and especially that of the pétrissage of the abdomen upon the digestive organs, we may with good reasons state: "That it has influence upon the whole circulation, on the secretion of juices on the appetite, the digestion and the power of assimilation on the peristaltics, and on the forwarding of the contents of the intestines on the renewing of the epithelium of the digestive canal, and last, but not least, on the nutrition of the muscular coats." (Kleen: "Handbok i Massage," page 224).

Bodily exercises have, it is well known, a great and manifold influence upon Nutrition. Besides the improved circulation and digestion, we have here to consider the fact, that in each cellule in activity Assimilation takes place more speedily than in inactive cellules. The cellules set to work by active movements, are of course both muscle- and nerve-cells. It has now been proved by experiments, that the parts most speedily exchanged are those, that do not contain albumen, viz.:—the fat and the carbonic hydrates. We may therefore suppose a priori, that the movement treatment is able to do great service both in such cases, where

the combustion of the fat is insufficient, that is in *Obesity*, and also in cases where the combustion of carbonic hydrates is insufficient, that is in *Diabetes Mellitus*.

Of course it is possible to reply, that it is more practical to recommend to a corpulent person, who wants to get rid of his superfluous fat, to take active exercise of various kinds in the open air. And we willingly admit, that this objection is valid—in slighter cases. But in those cases, where the corpulency is already so far advanced, that it is impossible for the patient to indulge in active exercise because of the weight of his body, and because he is immediately prevented by the difficulty of breathing, in such cases, I say, there is certainly no more suitable way than the Swedish Medical Manual Treatment, where we can adapt the strength of the movements exactly to the condition of the patient. An important factor is also an increased supply of oxygen, for which reason we do not neglect our means of procuring a deep respiration.

We mentioned just now, that bodily exercises expedite the combustion of the carbonic hydrates. It is upon this fact, that we

found our treatment of *Diabetes*, where the combustion of the sugar into carbonic acid is incomplete. It is made evident by experiments, that the excretion of sugar in the urine is diminished by active movements. And in this way the movement treatment, although it cannot of course cure the disease, is able considerably to improve the symptoms of Diabetes, and therefore it is much valued by the patients themselves.

Even the oxidation of the albumen is advanced by bodily exercises. On this account it is easily to be understood, of what great use the Swedish Treatment must be in cases of Gout. For, though there are different theories, as to how the depositions of uric acid take place, yet there is no doubt that they do take place in some joints and other parts of the system, which renders an increased expenditure and a diminished income of tonicities desirable. Our method offers an excellent way of gaining this end, as by it the patient can get plenty of exercise in a short time without being exhausted. It ought of course to be accompanied by a simple diet, but then the patient can also hope to avoid the painful attacks of Gout, or, if they

cannot be altogether prevented, their acuteness is sure to be lessened. As for the mode of living, many patients would perhaps be glad to know that, when undergoing this treatment, they do not need to keep such a strict diet, as is necessary without it; *i.e.* the income may be greater, when there is an expenditure counteracting it, than when the proper balance has to be kept only by lessened income.

What is now said about the treatment of Gout refers to the intervals between the attacks—or to the *suppressed* form of the disease—and it is as a rule only then, that our method is supposed to be serviceable, but Dr. Kleen mentions in his "Handbok i Massage," page 143, that in the acute state of the disease also, great relief can be given to the patient by effleurage in loco.\*

That the composition of the blood as well as that of other "tissues" is improved by a movement treatment is shown by the good results of this treatment in cases of *Anamia* 

<sup>\*</sup> During my short practice in England it has once been my privilege to try this with satisfying result. The pains were relieved and the patient expressed his opinion, that the duration of the attack was shortened by the treatment.—R. Timberg.

and *Chlorosis*. How the movements act upon the blood-preparing organs, is not known. We may, however, suppose that even here the chief factors are improved Circulation, Respiration, and Digestion.

As to *Chlorosis*, this disease is, as is well known, often combined with too small Menstruations. Whether as a result or as a cause is uncertain. At all events experience shows, that Chlorosis is often alleviated by producing more abundant menstruations; and therefore a movement treatment, that draws the blood in greater quantities to the pelvic organs is very useful. A discharging treatment has often on the other hand a good influence upon *Dysmenorrhéa*.\*

By the improved nutrition of the muscles we may increase their force in a high degree, when diminished from some cause or another. When there is weakness in the muscles from there being for some time reduced to inactivity

<sup>\*</sup> In a case of *Hysteria* with "ovarial pains" I used only a general movement treatment for some weeks, without being able to relieve the pains. But after having changed the treatment and using such movements, as drew the blood from the pelvis, I succeeded very soon in removing the pains.—G. Krikortz.

by fractures, more serious accidents, etc., an after-treatment by movements is in most cases wanted, and will always at least hasten recovery.

Of very great importance also is the strengthening of the dorsal muscles in *Scoliosis* and *Kypho-lordosis*, caused by weakness in these very muscles; in cases of Lordosis by weakness also in the muscles of the abdomen.

A sedentary life, too little physical exercise, wrong positions when writing, the habit of resting principally on one leg, etc., render Scoliosis a very common deformity, especially among the female youth. That in such conditions of weakness of the dorsal muscles a rational movement treatment is the only method, from which we may expect satisfactory result, is a now generally acknowledged fact. In the treatment of Scoliosis we consider it particularly important to strengthen the muscles of the convex side, these being always more relaxed and stretched than those of the concave side. If the Scoliosis has reached such a degree, that an evident torsion of the vertebral bodies accompanied by a hunch of the ribs has arisen, we must not expect from

the ordinary movements only to bring the vertebral coloumn into its normal state. We must then have the aid of other stronger mechanical methods such as oblique suspension over a bar and the elastic bandage with weights.

Another case where it is necessary to strengthen a particular muscular group, is in a *Prolapsus Uteri or of the Rectum*. It is of course here the muscles of the pelvis, that need strengthening, viz., the constrictor vaginæ, transversus perinei profundus, the sphincter ani externus, levator ani, etc., and we have in our method of treatment special movements for this purpose. Besides active movements we use in these cases liftings of the uterus or rectum with vibrations.

In speaking of Circulation we mentioned the particular value of Effleurage, Pétrissage and Tapotement, when desirous of assisting the circulation more locally. These manipulations have therefore a great influence upon Nutrition and are, together with *Frictions*, especially used in the treatment of the very ordinary infiltrations both in the muscles, that is *Myositis* or "Muscular Rheumatism," and in

the connective tissue, then called *Cellulitis*. Frictions have in the treatment of these complaints a particular value. They are used for the mechanical decomposition of the infiltrations and for pressing the thus separated particles into the small lymph vessels.

Occasionally it is our aim merely to gain mechanical results by our treatment. This is the case, when we treat extended Scar Contractions after operations and traumas or Adhæsive Inflammations (often taking place particularly round the uterus, which is then fixed in a wrong position), and in treating Contracted Conditions of the Muscles after long lasting immobilisation.

The influence of the movement treatment on the Functions of the nerves is of course as yet but little known. At any rate we can say with assurance, that the nerves as well as all other tissues must benefit from the generally improved nutrition. At least this is the best way to explain the effect of our treatment in cases such as Neurasthénia, Insomnia, Hysteria, Chorea, Migraine, and similar diseases.\*

<sup>\*</sup> Professor Weir-Mitchell of Philadelphia, in his book "Fat and Blood," in which he gives an account of the treat-

Another fact to be borne in mind is, that we must consider ourselves able, by active and passive movements, to drive the blood from over-worked and consequently hyperæmic nerve centra, according to the law "Ubi irritatio, ibi affluxus." This circumstance must have a particular importance in the cure of sleeplessness, caused by over-working the brain. We must of course be very careful not to produce a new over-straining by too strong movements. But it is precisely because of its capacity of suiting the degree of effort to the need and strength of the patient, that the Swedish Treatment deserves preference. By selecting suitable positions for the different movements, and movements, where we ourselves exercise the resistance, which the patient has to overcome, and which can then be increased or diminished ad libitum, we are able to adapt them to the weakest as well as to the strongest patient.

If we, for instance, prescribe bodily exercise such as walking, riding, etc., for a neurasthénic ment of Neurasthénia and Hysteria systematized by him, generally known under the name of "The Weir-Mitchell cure," mentions the Swedish movements as one of the chief factors in this treatment.

person, it is impossible to regulate the amount of effort put forth. He will often do too much. And in many cases it will be seen, that on coming home he will complain of weariness, headache, palpitation, etc. But if in our treatment we have time to study the patient's condition, a programme of movements can easily be found, that will make him feel strengthened and more animated after every séance.

This advantage is derived from our treatment partly because we have opportunity to watch over the patient during the whole treatment, and then, as mentioned, can better accommodate the amount of effort to his condition, partly because we can, if necessary, give the patient more exercise without his own assistance, viz.: by passive movements, and partly because we are able to bring into activity all the different groups of muscles to a proper degree, while in other kinds of exercise a particular muscle group is likely to be more or less exclusively in play.

After these more general statements we will now say a few words about the more particular effects of the movement treatment upon the functions of the nerves. We possess.

in this treatment the means both of decreasing and of increasing the Excitability of the nerves.

In cases of too great excitability we have of course always to think of the general condition of the patient from the fact, that nerves badly nourished are more irritable than when in a better state of nutrition, but in cases of Neuralgia for instance we chiefly use Vibrations over the affected nerve. If the neuralgia is in the Supraorbital Nerve, we apply the vibrations over the issue of the nerve from the orbital cavity through the incisura supraorbitalis (foramen supraorbitale) and also along its course over the frontal bone. In most cases it is sufficient to do these vibrations very gently, but sometimes it may be necessary to use considerably force to "couper la neuralgie."\*

In treating *Sciatica* we operate upon the nerve not only at its issue through the greater sciatic notch, but also along its whole course and specially where it passes through the popliteal space, over the head of the fibula and behind the malleoli. Even a strong Tapote-

<sup>\*</sup> As a proof of the effectiveness of Vibrations on the excitability of the nerves I may mention, that in a case of *Ren Mobilis*, I had the opportunity of seeing the pains relieved by vibrations over the kidneys.—G. KRIKORTZ.

ment (with the fist) can sometimes be of great use. By its anatomical position the sciatic nerve is accessible to stretchings, which often have the power of relieving the pains, however painful they may be at the moment. In those cases, where infiltrations in the muscles or nerves are palpable, these must of course have special attention.

A constant pressure also on such places where the nerves are accessible for it, may often aid in decreasing their excitability. Chronic Cramp in the Diaphragm for instance may by a constant pressure on the phrenic nerves almost immediately be removed.

For increasing the excitability of a paretic or paralytic nerve we avail ourselves principally of Frictions, administered just as you touch the strings of a harp, but Vibrations may also be used for the same purpose.\* In answer to these irritations, the nerve produces small contractions of the muscles even in many cases, where its reaction to electrical irritation is quite gone.

<sup>\*</sup> Thus we see, that the same means can be used both to decrease and to increase the excitability of the nerves, in analogy with what is the case in Electro-therapeutics.

Beyond these direct irritations of the nerves we use active movements for the paretic muscles in addition to Pétrissage and Tapotement. In paretic and paralytic conditions after *A poplectic Fits* this treatment has often surprisingly good results.

One class of nerve-diseases, in which our treatment deserves to be tried, is Occupation Neuroses, take for instance the typical Writer's Cramp. Although the prognosis, alas, is always doubtful in affections of this kind, yet this treatment, of all therapeutics, has to show the most satisfying results. This at any rate is Strümpell's opinion. A general movement treatment is advisable in such cases for patients suffering from general nervousness, but passive and active movements in loco with special attention given to the infiltrations in the nerves, that can sometimes be noticed here are the main part of the treatment.

Besides in these nerve-complaints just mentioned, the movement treatment has produced a good effect in *Diseases of the Spinal Chord*. To cure them of course is as impossible by this method as by any other. But we may often hope to improve the symptoms or at

any rate retard their development.

We may here mention as an example the treatment of Tabes Dorsalis. In the Kongl. Gymnastiska Central Institutet we have seen two such cases treated. In both of them an evident improvement of certain symptoms was remarked. Especially concerning difficulty in passing the urine. One of these patients could not at the beginning of the treatment pass the urine at all without help of the catheter, but after some weeks he was able to do without it. And if we consider the danger of Contagion, that always accompanies the use of the catheter, when it cannot always be done by medical men, even this improvement must be regarded as worthy of notice. The treatment of the symptom in question consisted only of Vibrations over the urinary bladder, applied partly through the coverings of the abdomen above the symphysis, partly in the perineal space.\* Besides which the general movement treatment was followed.

In another case of Tabes treated in the

<sup>\*</sup> The nerves of the bladder seem to be particularly susceptible to the stimulus of such vibrations, as it is possible in this way successfully to treat the troublesome child complaint *Enuresis Nocturua*.

Gymnastiskt Orthopediska Institutet in Stockholm the improvement was astonishing. However, this case must be regarded as exceptional in respect to the degree of recovery, as here the Romberg's symptom, in the beginning very prominent, under an energetic and persevering treatment entirely disappeared.

Here it ought to be remarked, that the treatment by Electricity of Tabes Dorsalis, which was formerly practised in the *Gymnastiskt Orthopediska Institutet*, has now been exchanged for the mere mechanical treatment.

The first object of our treatment of spinal complaints is to keep the muscles, that have fallen more or less into disuse, in the best possible state of nutrition, and moreover to return the power of contraction to paretic or paralytic muscles as far as possible. It is of course impossible to say, how this is effected, but we must suppose, until further knowledge on the subject has been acquired, that it is done by the development of "vicarious" nerve courses or by a reflective effect on the vasomotor or trophic nerves, in analogy with what must be regarded as the effect of the treatment of several diseases of the brain and

spinal chord by Faradisation of the sensitive nerves.

It cannot be denied, that there still exists a great uncertainty as to how the effects of the movements upon the human body in general and upon the nerves in particular are produced. But this is no reason for not using a method, which has proved most successful in practice. The uncertainty as to the effects of many other remedies is quite as great, as for instance that of Electricity, of Quinine in Febris Intermittens, of Salicylic acid in Rheumatismus Acutus Articulorum, of the Kalium Jodatum in Syfilis Tertiaria, etc. But still no practitioner would do without them.

To what has already been said about the treatment of nerve-complaints, we will only add here the names of the spinal complaints, for which Strümpell, who cannot be regarded in any way as an enthusiast of the movement treatment, recommends it in his "Lehrbuch der speciellen Pathologie und Therapie der inneren Krankheiten." They are: Neurasthenia spinalis, "Sclérose en plaques," Sclerosis lateralis amyotrophica, Atrophia musculorum spinalis progressiva, "Tabes dorsai spasmodique" (spastic spinal

paralysis) and Poliomyelitis anterior acuta (its lasting symptoms).

In the last place we must mention the most important Contra-indications for the use of our treatment or some part of it.

All treatment, at any rate in loco, is inadvisable in the case of a recently formed ·Thrombus, because we have to fear the possibility, that some part of the thrombus may become detached and following the bloodcurrent to the lungs or even to the brain may there cause an Embolism. It is inadvisable in such cases, where there is any danger of the movement treatment helping the Metastasis of circumscript collections of bacilli as in Abscesses, Tuberculotic Inflammations of the Joints, Spondylitis, etc., also of course in cases of recent Traumas and Chronic Wounds, so far as it concerns the treatment in loco, while on the other hand a cautious effleurage, that improves the local nutrition may often prove of surprisingly good effect, when used in the surroundings of for instance an Ulcus Cruris or a Decubitus, and may also be used with advantage in such cases, where a Decubitus is not yet developed, but is to be feared.

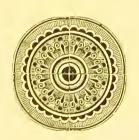
From all we have now said about the principles of the Swedish Medical Manual Treatment it appears, that it is the general effects of active and passive movements, that we aim at. We do not possess any special movements for special diseases, except in very rare cases. The superiority, that the Swedish method has over all other mechanical methods as for instance Oertel's method of walking uphill or movements with machines\* lies chiefly in the following points:—(I) The possibility of adapting the effort to the need and of confining the effect of the movement to any particular part of the body. Thus it is possible to treat by our method even patients who do not possess strength enough to rise from their bed. (2) The foundation of the movements on anatomical and physiological principles, for which reason we never use such movements, as might cause any hindrance to free respiration or other important functions, but lay a particular stress upon the fact, that the movements must further the respiration and tend to enlarge the chest, if possible.

<sup>\*</sup> The ingenious machines invented by Dr. ZANDER ought to be mentioned as a valuable substitute for the manual treatment in some cases.

We ought perhaps to remark in conclusion, that we are not sanguine enough to believe, that in every case we are able to cure, or even to relieve diseases, which as a rule are suitable for the treatment. In our method, as in every other, there must be failures. But, if the patients persevere in the treatment for a sufficiently long time, I can confidently say, that cases, in which the patient has reason to regret the time and money spent, will be comparatively few. In many cases we certainly have the satisfaction of seeing a very rapid result of our treatment, while in many others great perseverance is required, both on our side and that of the patient. But when the health is at stake, it may be worth the trouble for a Neurasthenic or a Scoliotic person to devote an hour every day to it, even though it be for months. And by a patient suffering from a Valvular Disease of the Heart it must be considered a great boon to be able by a few months' treatment a year to avoid the most troublesome symptoms of his complaint, though there can be no question of a positive cure.

Although the principles of the Swedish Medical Manual Treatment are very simple,

yet its practice is not easy even to those, who have a perfect knowledge of the anatomy of the movements. Moreover it is necessary to be thoroughly acquainted with the importance of the different positions in order to facilitate the movements or to make them more difficult, and further to have a well developed muscular sense for adapting the resistance and for the form of the movements. All this is acquired only by a long and careful training. In the same way, that other methods of treatment, such as Electro—and Orthopedic Therapeutics require their own specialists, so the Swedish Medical Manual Treatment needs its own practitioners.





## TABLE OF CASES TREATED

IN THE

## Kongl. Gymnastiska Central Institutet

Іх Ѕтоскноьм,

During a period of five years (1888-1892), according to the Annual Accounts, which have to be sent in to the

ROYAL SWEDISH MEDICAL COUNCIL.

|           | lai                 |                      |                   |           |                  |              |    |          |           |     |                           |                             |         |                           |            |                       |              |  |                           |                             |             |                             |                         | 1               |
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| 1892.     |                     | 17                   |                   |           | 6                |              | 19 |          |           |     |                           |                             |         |                           | 1 5        | ) °                   | —<br>پې      | 2.1  |                           | - C                         | ے<br>       | G                           | 1                       | _               |
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| 1889,     | F. 4                | 32                   | ୍ଦୀ               |           |                  |              |    |          | - 67      | _   | <u>ت</u>                  |                             |         |                           | <br>       | <u> </u>              | 9            | 5  |                           |                             |             |                             | <u></u>                 | _               |
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| DISEASES. | Scrofula            | Chlorosis and Anæmia | Diabetes Mellitus | disturbar | nd Nervous Syste | Falalysis    |    | n Neur   | Chorea    | nia | Hysteria and Hypochondria | Other diseases of the Brain |         | Diseases of the Organs of | the Senses | Organic Heart Disease | Cor Adiposum | Nerval Heart Disease   | Over-excited Heart Action | Other diseases of Heart and | Vessels     | Chronic Catarrh of Trachea, | Bronchial Tubes & Lungs | Oi . Di 22 Dans |

| ı         |                           |                       |                            |                |                             |                              |             |                             |                 |                         |        |   |            |                               |                          |               |                  |                             |                   |                               |                             |                             |    |                   |                        |   |       |
|-----------|---------------------------|-----------------------|----------------------------|----------------|-----------------------------|------------------------------|-------------|-----------------------------|-----------------|-------------------------|--------|---|------------|-------------------------------|--------------------------|---------------|------------------|-----------------------------|-------------------|-------------------------------|-----------------------------|-----------------------------|----|-------------------|------------------------|---|-------|
|           |                           |                       |                            | 28             | 57                          |                              | 13          | 4                           | ಣ               |                         | 10     |   | 64         | 74                            |                          | 47            | 09               |                             | 121               | 1                             | 91                          | ಣ                           | İ  |                   | 1                      |   | 624   |
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| :         |                           | 1                     |                            | =              | i                           |                              |             |                             | ગ               |                         |        |   | 36         | 25                            |                          | 16            | 14               |                             | $\frac{8}{1}$     |                               | <del>-+</del>               | 1                           | j  |                   |                        |   | 290   |
| 7         |                           | _                     |                            | ည<br>လ         | +                           |                              | <u> </u>    |                             | <u></u>         |                         |        |   | <b>†</b> † | 14                            |                          | 21            | 20               |                             | \$ <del>**</del>  |                               | 14                          | 4                           |    |                   | 1                      |   | 513   |
|           |                           | -                     |                            | 91             | ಬ                           |                              | ဗ္          |                             | <del>-</del>    |                         |        |   | 17         | 25                            |                          | 133           | 333              |                             | 24                |                               |                             | ଦୀ                          |    |                   |                        |   | 241   |
| 1         |                           | ı                     |                            | ;;<br>;;       |                             |                              | <del></del> |                             | ಣ               |                         | -      | _ | 52         | 23                            |                          | $\infty$      | 17               |                             | 09                |                               | က                           | কা                          |    | -                 | Ì                      |   | 272   |
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| 0         |                           | ,                     |                            | ÷              | **                          |                              | 9           |                             | -               |                         | -      |   | 37         | 50                            |                          | 11            | 46               |                             | 39                |                               | 9                           | ଦା                          |    | 1                 |                        |   | 324   |
| i         |                           | ı                     |                            | x              |                             |                              | ा           |                             |                 |                         |        |   | <u>?]</u>  | 13                            |                          | t~            | 37               |                             | 17                |                               | 9                           |                             | 1  |                   |                        |   | 157   |
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| Emphysema | Other diseases of the Re- | spiratory Organs      | Chronic Catarrh of Stomach | and Intestines | Consequences of Peritonitis | Other diseases of the Diges- |             | Diseases of the Kidneys and | Urinary Bladder | Diseases of the Genital | Organs |   | $\sim$     | Other diseases of the Muscles | Sprain and Distorsion of | Articulations | Spinal Curvature | Other diseases of the Bones | and Articulations | Diseases of the Skin and Sub- | cutaneous Connective Tissue | Without any Special Disease |    | Mercury Poisoning | Prolapse of the Rectum |   | Total |









